

## **The Influence of Social Support and Gender-Sensitive Education on Breast Cancer Screening by High-Risk Women**

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### Statement of the Research Problem

Breast cancer is the most frequent type of cancer affecting American women, and the second most deadly. The incidence of this disease is disproportionately higher in older women; twice as many women are affected at 65 years of age as those at 40 years, and three times as many at 75 years. While this disease can not yet be prevented, the use of mammography and breast self-examination can identify it in its early stages, thereby increasing the likelihood of a cure with appropriate treatment. Older women, women of lower socio-economic status, and women of color have been found to use screening methods less frequently than those with higher levels of education and income, and adequate health insurance. These are the women at highest risk of death from breast cancer, due to their infrequent use of breast cancer screening, lack of medical insurance, and higher incidence rates.

Many types of education programs have been developed to encourage the use of breast cancer screening, ranging from community-wide mass media efforts to programs in university and medical settings. In general, these efforts have not been successful in screening women at the greatest risk for breast cancer. Follow-up studies of community campaigns indicate that middle-class, educated, Caucasian women are the group who most frequently get mammograms following intensive health promotion efforts. A greater diversity of women are screened when outreach efforts are undertaken through health clinics or medical practices; these efforts, however, are usually limited to the patients of these medical facilities. Presentations to community groups can be effective, but are limited to those who participate in the groups. New methods of encouraging high-risk women to use mammograms are needed, so that all women begin to routinely use diagnostic procedures that can identify breast cancer.

Social workers have not taken an active role in breast cancer screening programs; most social work involvement has been with women experiencing breast cancer and their families. While this is very important work, there is a strong need for social work involvement in prevention and early detection of breast cancer.

## Research Questions

This study investigated two aspects of breast cancer screening behavior by older women of various ethnic and racial groups. The first group of research questions examined whether social support and a number of other variables, including age, education, socio-economic status, and risk factors for breast cancer, were associated with the use of breast cancer screening. If social support is strongly associated with the use of screening behaviors, as previous research indicates, interventions with both naturally occurring and created social networks may be the most influential way to increase the use of cancer screening by high-risk women. A few recent studies indicate that some high-risk women prefer to receive health information from interpersonal rather than media sources. This research lends support to this approach to breast cancer screening.

The second focus of this research study was to test whether an educational intervention, designed by the author, would be successful in motivating high-risk women to use breast cancer screening methods. This intervention was based on two educational methodologies: feminist pedagogy and transformative learning principals, and emphasized social support, both in process and content. Most programs designed to educate women about breast cancer and screening methods do not use a particular educational methodology, nor do they concern themselves with this aspect of the intervention. In contrast, the premise of this study is that educational methods and techniques developed for adult learners, particularly those focused on the needs of women, can significantly increase the impact of a health promotion intervention on women's health. Therefore, the study hypothesis was that the educational intervention would positively influence older women to obtain mammograms and use breast self-examination.

## Methodology

This quantitative research study used a purposive, nonprobability sample of women between the ages of 55 and 80 years living in a northern city in the United States. The first part of the study used a correlation design to examine the relationship between social support and several other variables (age, ethnicity, cancer risk factors, and socioeconomic position) with cancer screening behaviors (mammography and breast self-examination). This was accomplished by administering a survey on senior women's health practices to 158 older women through community groups, health fairs, and programs for seniors. Two instruments were incorporated into the survey: social support was measured by the Social Network Index developed by Kang, Bloom & Romano (1994), and socioeconomic status was measured by the Hollingshead Two-Factor Index of Social Position. The data was analyzed with quantitative statistical measures, primarily the Chi-Square test and both the Spearman and Pearson correlation coefficients.

The effectiveness of the educational intervention was tested with the quasi-experimental research design known as the "nonequivalent control group" design. Both experimental and control groups completed a pre-test and a post-test six months later; informed consent was obtained at the time of the pre-test. The experimental subjects were 35 older women who volunteered to attend a two-session health workshop given by the author at senior centers and senior residences in the community. A total of 20 subjects completed both the intervention and the follow-up survey. This group was compared to a control group of 50 women who did not receive the educational intervention. Data analysis was primarily accomplished by using the Chi-Square measure.

## Results

In some cases, the findings from the correlational portion of the study substantiate other research studies, while in others new data was found. A statistically significant association was found between ethnicity and social support for women using breast cancer screening. The influence of social support on mammography usage for older women of color in this study confirms trends in two other recent research studies. This is a promising area for further research. There was also a significant relationship found between ethnicity and mammography within the last year. This was not expected, as most national studies find that women of color use mammography much less frequently than Caucasian women.

While an older woman's personal history of breast cancer was not significantly associated with her use of cancer screening methods, her history of other breast problems was associated with the use of screening. There was also a significant relationship between family history of breast cancer and use of cancer screening. These findings indicate that women are motivated to use breast cancer screening when they have had breast problems or have a positive family history, both of which are significant risk factors for breast cancer. However, once women have experienced cancer, they appear to stop using screening methods. This may be due to a fatalistic approach to serious illness or perhaps beliefs about reoccurrence. This would be an area for further exploration, as this is a sub-group of women at very high-risk for further cancer, either in the breast or metastasized in other places in the body.

Socio-economic status was found to have a statistically significant association with breast cancer screening. Low screening use by low-income women has been found in many national studies. Perhaps the most significant finding of this study was the statistically significant association of the gender-sensitive educational intervention with the use of breast cancer screening (obtaining a mammogram and using breast self-examination) during the intervention period. The combination of social support and cancer education based on gender-based adult learning theory appears to be a significant motivator in changing women's preventive health behaviors.

## Utility for Social Work Practice

This research study is significant for the profession of social work as the topic of health promotion is an under-developed field of practice. Breast cancer is currently reaching epidemic proportions, and social workers can play a valuable role in developing health promotion strategies for vulnerable population groups. More than most other professions, social workers have developed expertise in providing a variety of interventions for the most disenfranchised members of society, including the poor, less educated, and ethnic and racial minority groups. Social workers also routinely work with female clients in a multitude of settings, and are now integrating a wide range of women's issues into their practice.

In this era of cutbacks in publicly funded health outreach programs, there may soon be limited efforts to encourage high-risk women to use cancer screening and other health promotion behaviors. Social workers can provide a more holistic type of intervention by incorporating health promotion activities into their practice in various community settings. They are ideally situated to provide physical and mental health interventions to those who would not usually seek these types of care; these individuals are often those at highest risk due to their limited financial resources. In fact, social workers may be the only health care professionals to have contact with many of these women.

By integrating health promotion activities into their practice, social workers will more effectively use a holistic perspective. The Life Model and other theories emphasize the importance of assessing and treating the biological, psychological, and social aspects of behavior. Teaching clients about various preventive health behaviors can reduce their exposure to disease and identify any current disease processes. Early diagnosis of many diseases will save lives and reduce medical expenditures. Preventive health is an exciting new area of social work practice.

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